

IN THE CLAIMS:

1. (Currently Amended) A particle size distribution analyzer comprising:

a transparent cell for containing a sample containing particles to be analyzed;

a laser light irradiating section for irradiating the sample with a laser light from

5 outside of the cell;

a scattering light intensity detecting section for detecting the intensity of light scattered from the particles irradiated with the laser light;

a calculating section for calculating a particle size distribution of the particles based on a fluctuation of the intensity of scattering light measured which occurs due to Brownian motions of the particles; and

10 a noise reducing section operative to reduce the amount of noise-causing scattering light becoming incident on the scattering light intensity detecting section, the noise reducing section comprising a region to be irradiated with the laser light of at least one of an outside surface and an inside surface of the cell, the region being inclined a predetermined angle
15 with respect to ~~[[the]]~~ an optical axis of the laser light.

2. (Previously Presented) The particle size distribution analyzer in accordance with claim 1, wherein the scattering light intensity detecting section is configured to measure the intensity of back scattering light which travels in a reverse direction from a direction of irradiation of laser light on the sample.

20 3. (Previously Presented) The particle size distribution analyzer of Claim 1 wherein the noise reducing section further includes a shielding plate with a pinhole positioned between the transparent cell and the scattering light intensity detecting section.

4. (Currently Amended) The particle size distribution analyzer of Claim 1 wherein the transparent cell has four walls with an incident and egressing wall, for laser light transmission, the incident and egressing wall is positioned non-traverse to the optical axis of the laser light.

5 5. (Currently Amended) The particle size distribution analyzer of Claim 1 wherein the transparent cell has three walls with an incident and egressing wall, for laser light transmission, the incident and egressing wall is positioned non-traverse to the optical axis of the laser light.

6. (Previously Presented) The particle size distribution analyzer of Claim 1 wherein
10 the outside surface and inside surface of the cell are parallel.

7. (Currently Amended) A particle size distribution analyzer comprising:
a transparent cell for containing a sample containing particles to be analyzed;
a laser light irradiating section for irradiating the sample with laser light from
outside of the cell;

15 a scattering light intensity detecting section for detecting ~~[[the]]~~ an intensity of light scattered from the particles irradiated with the laser light; and

a calculating section for calculating a particle size distribution of the particles based on a fluctuation of the intensity of scattering light measured, wherein the transparent cell has a planar wall that is positioned at an angle ~~sufficiently~~ offset from a perpendicular crossing
20 of ~~[[the]]~~ an optical axis of the incident laser light to reduce any scattered light from defects in the surfaces of the planar wall to reduce noise - causing scattering light from the defects from reaching the scattering light intensity detecting section.

8. (Currently Amended) The particle size distribution analyzer in accordance with claim [[1]] 7, wherein the scattering light intensity detecting section is configured to measure the intensity of back scattering light which travels in a reverse direction to a direction of irradiation of the laser light on the sample.

5 9. (Previously Presented) The particle size distribution analyzer of Claim 7 wherein the noise reducing section further includes a shielding plate with a pinhole positioned between the transparent cell and the scattering light intensity detecting section.

10 10. (Currently Amended) The particle size distribution analyzer of Claim 7 wherein the transparent cell has four walls with an incident and egressing wall for laser light transmission the incident and egressing wall is positioned non-traverse to the optical axis of the laser light.

11. (Currently Amended) The particle size distribution analyzer of Claim 7 wherein the transparent cell has three walls with an incident and egressing wall for laser light transmission the incident and egressing wall is positioned non-traverse to the optical axis of the laser light.

15 12. (Previously Presented) The particle size distribution analyzer of Claim 7 wherein the outside surface and inside surface of the cell wall are parallel.

13. (New) A particle size distribution analyzer comprising:

a transparent cell for containing a sample containing particles to be analyzed;

a laser light irradiating section for irradiating the sample with a laser light along
an optical axis from outside of the cell;

5 a scattering light intensity detecting section for detecting the intensity of light
scattered from the particles irradiated with laser light; and

a calculating section for calculating a particle size distribution of the particles
based on a fluctuation of the intensity of scattering light measured which occurs due to Brownian
motions of the particles, a region to be irradiated with laser light of at least one of an outside
10 surface and an inside surface of the cell being inclined a predetermined angle with respect to the
optical axis of the laser light in order to reduce the amount of noise-causing scattering light
caused by any scratch on the cell surface or streaks in a cell wall from becoming incident on the
scattering light intensity detecting section.

14. (New) A particle size distribution analyzer comprising:

a transparent cell for containing a sample containing particles to be analyzed;

a laser light irradiating section for irradiating the sample with a laser light along
an optical axis from outside of the transparent cell;

5 a scattering light intensity detecting section for detecting the intensity of light
scattered from the particles irradiated with the laser light; and

a calculating section for calculating a particle size distribution of the particles
based on a fluctuation of the intensity of scattering light measured wherein the transparent cell
has a planar wall that is positioned at an angle sufficiently offset from a perpendicular crossing
10 of the optical axis to reduce any scattered light from defects in the surfaces of the planar wall to
thereby reduce noise-causing scattering light caused by a scratch on a cell surface or streaks in a
cell wall from reaching the scattering light intensity detecting section.